

No. 618,568.

Patented Jan. 31, 1899.

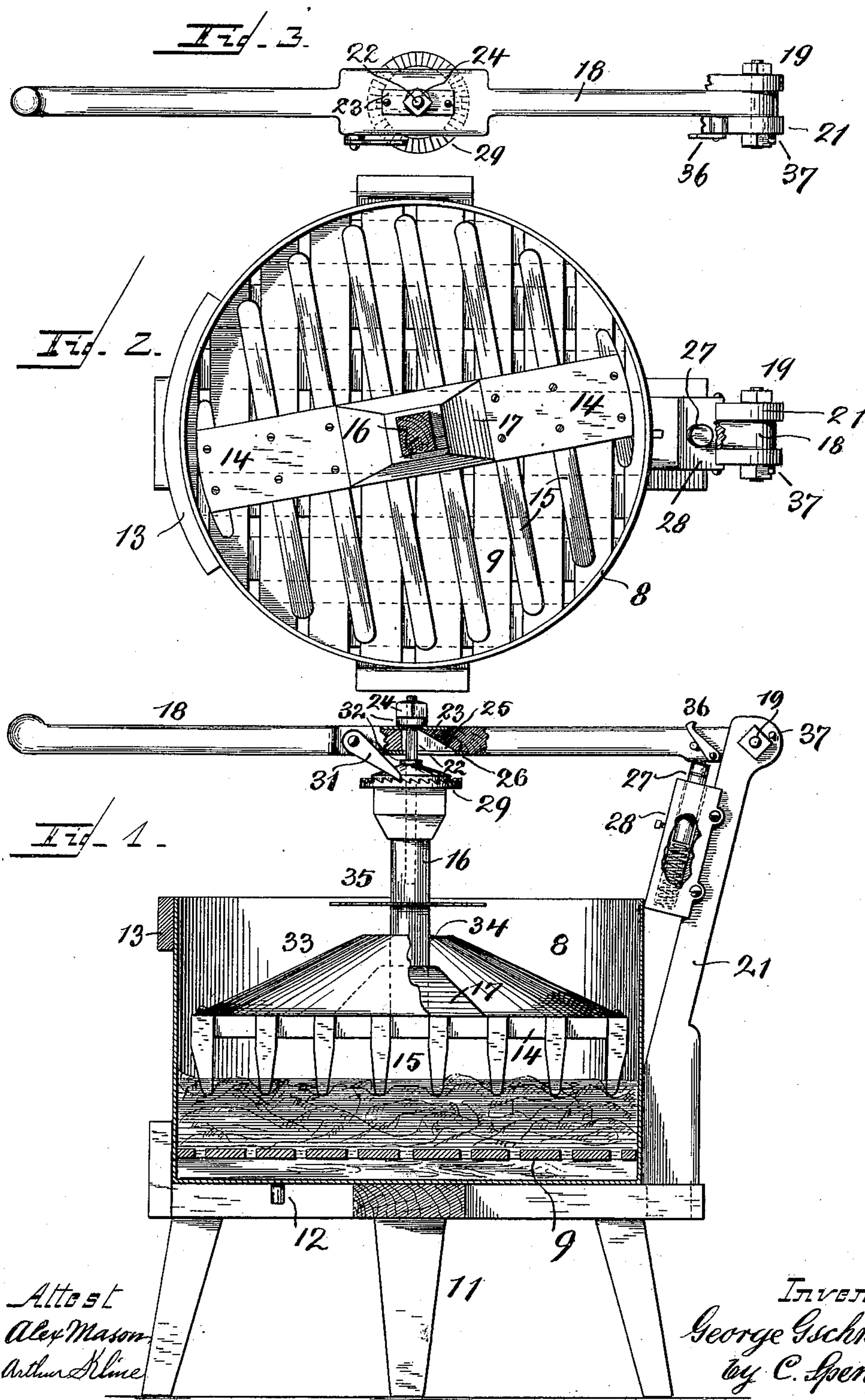
G. GSCHWENDTNER.

WASHING MACHINE.

(Application filed Dec. 6, 1897.)

(No Model.)

2 Sheets—Sheet 1.



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Alex Mason
Arthur Kline

Inventor
George Gschwendtner
by C. Spengel Atty.

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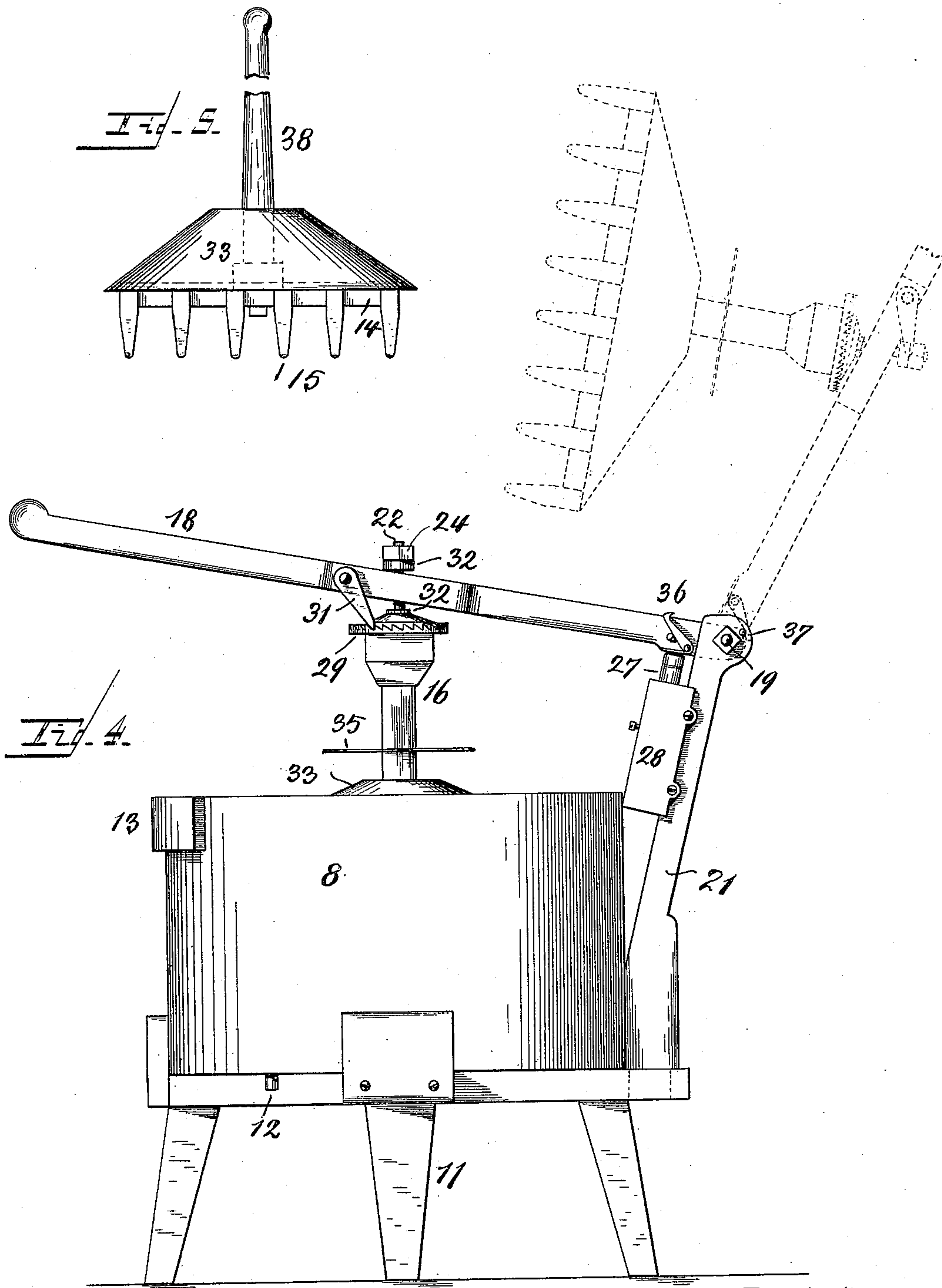
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UNITED STATES PATENT OFFICE.

GEORGE GSCHWENDTNER, OF CINCINNATI, OHIO.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 618,568, dated January 31, 1899.

Application filed December 6 1897. Serial No. 661,008. (No model.)

To all whom it may concern:

Be it known that I, GEORGE GSCHWENDTNER, a citizen of the United States, and a resident of Cincinnati, Hamilton county, State of Ohio, have invented a certain new and useful Washing-Machine; and I do declare the following to be a clear, full, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, attention being called to the accompanying drawings, with the reference-numerals marked thereon, which form a part of this specification.

This invention relates to improvements in washing-machines of the kind where the clothes to be washed are acted upon while within a water-containing receptacle or sudstub by the agitation of a pounder; and the invention consists of certain features of construction in general and in detail, all of which will be referred to at the proper time.

In the following specification and particularly pointed out in the claim is found a full description of the invention, its operation, parts, and construction, which latter is also illustrated in the accompanying two sheets of drawings, in which—

Figure 1 is a vertical section of the machine complete and ready for operation. Fig. 2 is a top view of the same with the operating mechanism removed. Fig. 3 shows this latter in top view. Fig. 4 shows an elevation of the machine in one of the positions it assumes during operation. Fig. 5 shows a modification of the pounder.

8 is the receptacle, containing water and the clothes to be washed and is preferably of sheet metal. Its floor is strengthened by a grate 9, consisting of a double layer of slats secured to each other and fitted into the receptacle. The whole is supported on a suitable frame provided with legs 11.

12 is an outlet-spout permitting complete emptying of the receptacle. 13 is a reinforcement, preferably of wood, secured to the latter near its upper edge to provide a substantial base, against which to secure a clothes-wringer and to receive the clamping-screws of the latter.

The pounder consists of a cross-head in shape of a bar 14, from which arms 15 project laterally, and the under edge of which acts

directly upon the clothes to be washed, the action being primarily by moving such pounder up and down. For so moving it, cross-bar 14 is secured to the lower end of an upright shaft 16, the connection being strengthened by a hub 17, and an operating-lever 18, pivoted at 19 to an upright 21, is provided, to which the upper end of said shaft 16 is secured. This last-named connection is such as to enable the pounder to maintain its horizontal position during operation of the machine, for which purpose it is loosely hung to lever 18. In detail this connection is as follows: To the upper end of shaft 16, which is of wood, is secured a pivot-pin 22, which is received with a free fit by a perforated plate 23, secured to the upper side of lever 18 and provided with a nut 24 above the perforation. Below this plate the perforation is continued through the material of the lever, but at the same time gradually elongated in one direction, assuming the form of a slot 25. It will now be understood that when lever 18 is raised during the operation of the machine in a manner as shown in Fig. 4 pivot-pin 22 is free to swing into this slot 25, enabling shaft 16 to maintain its perpendicular position. Lever 18 being of wood, it is preferable to bound the lower edge of slot 25 with an equally-slotted plate 26, thereby preventing wear of the lever.

27 is a rubber-tipped buffer carried in a housing 28 with a spring behind it. Its office is to check the movement of the parts near the end of the downward stroke, thereby preventing strain on the bearings, while the expansive force of the compressed spring aids the operation at the start of the upward movement. It engages lever 18 on its under side near the point of its pivotal connection, for which purpose housing 28 is secured to standard 21. In addition to the vertical movement the pounder has also an intermittent rotary one, which is automatic and caused by the movement first mentioned. For such purpose a ratchet-wheel 29 is mounted upon an enlargement of shaft 16, to which it is rigidly secured and provided with teeth in its upper side. A pawl 31 is hung to the side of lever 18, as shown, and is of such length as to be capable of maintaining always its contact with the teeth of wheel 29. By looking

at Fig. 4 it will be observed that this pawl slips back over the ratchet-teeth during the up movement of the parts, because the wheel 29 swings away from it at that time. On the down movement the wheel approaches the pawl again, as shown in Fig. 1, and since thereby the distance between the two decreases it follows that the ratchet-wheel must yield in a rotary direction. During such rotation pin 22 revolves in the perforation of plate 23. To prevent rattling and noise, it is preferable to provide rubber washers 32 32 on pin 22 above and below lever 18.

To prevent splashing of the water and confine the heat within vessel 8, a cover or hood 33 is provided, which is open at 34 to permit escape of steam. To prevent it from interfering with the motion of the movable parts, it is preferably secured to move with the pounder, but capable to cover the interior of the vessel during all positions of the pounder while in operation. Splashing up of water through this opening at 34 is prevented by a shield 35, projecting over it and reaching out from shaft 16.

Whenever it becomes necessary to clear vessel 8 of the pounder to permit access to it for any purpose, the latter is tilted back, as shown in Fig. 4 in dotted lines. It is held in

such position by a hook 36 on lever 18 engaging a pin 37 on standard 21.

In Fig. 5 a pounder of the same construction is shown suitable for direct operation without the operating-lever and adapted to be used in connection with any suitable receptacle or wash-tub. For such purpose the shaft 16 is increased in length and forms an operating-handle 38.

Having described my invention, I claim as new—

The combination in a washing-machine of a suitable vessel, a pounder, a pivoted lever 18 for moving the pounder up and down within the vessel, a buffer 27 adapted to act against the under side of the lever near its pivoted end, a spiral spring back of the buffer, a housing 28 within which they are secured and a standard 21 located outside of the vessel and projecting above the same and serving for the purpose of supporting both lever 18 and housing 28, to bring the buffer end below the lever, as and for the purpose described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

GEORGE GSCHWENDTNER.

Witnesses:

JOHN BLANK,

C. SPENGEL.